Difficult Wetland Situations

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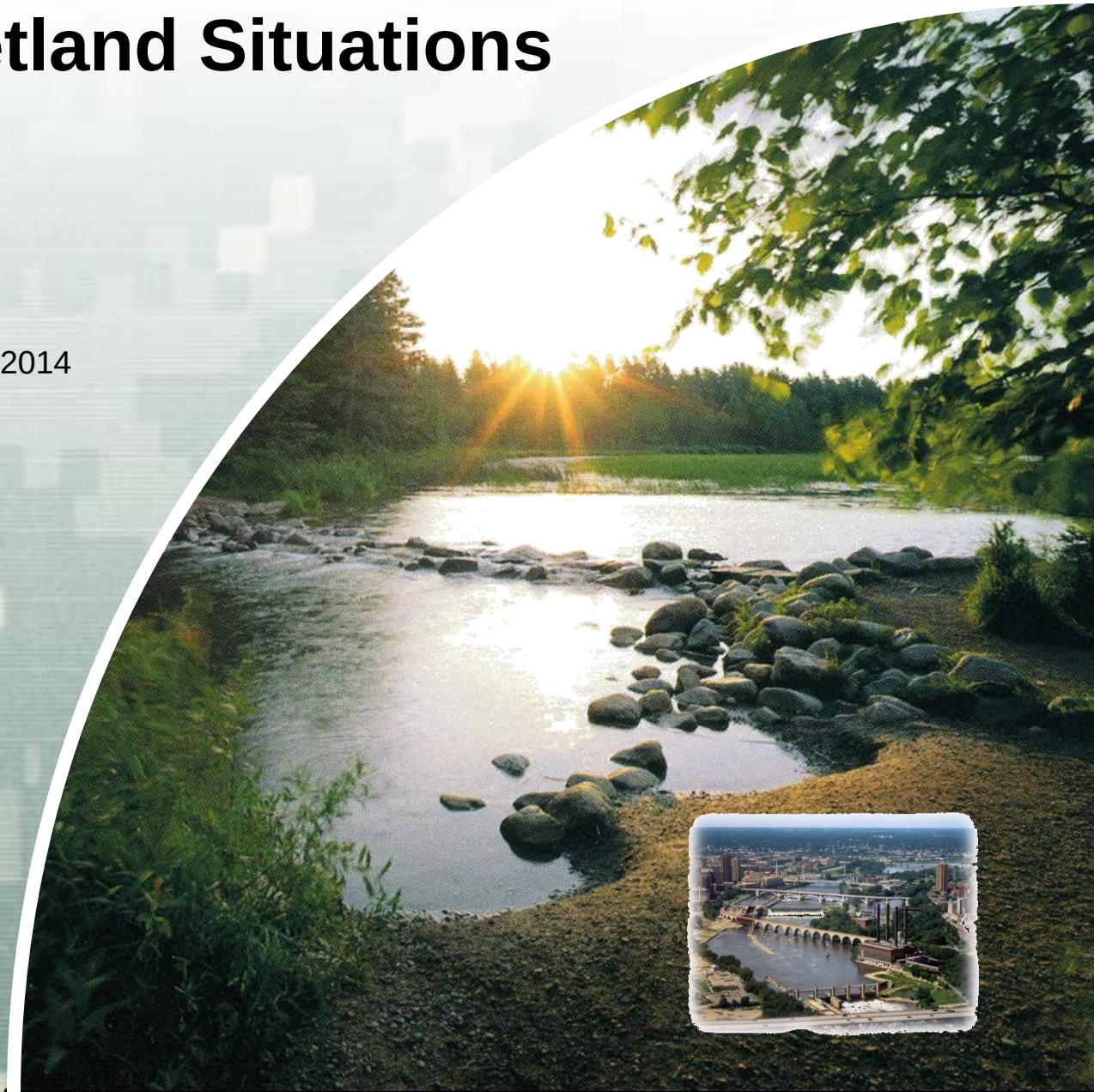

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DoD Joint Ethics Regulation, ¶ 2-207

Presentation Outline

- Background/review
- Difficult Wetland Situations
  - Key definitions
  - Examples
- Q&A/discussion

Wetland Definition

Wetlands are sometimes wet areas where people meet to argue.

-Greg Larson, Soil Scientist

Wetland Definition

Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under

normal circumstances

do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Normal Circumstances

The soils and hydrology normally present without regard to whether vegetation has been removed.

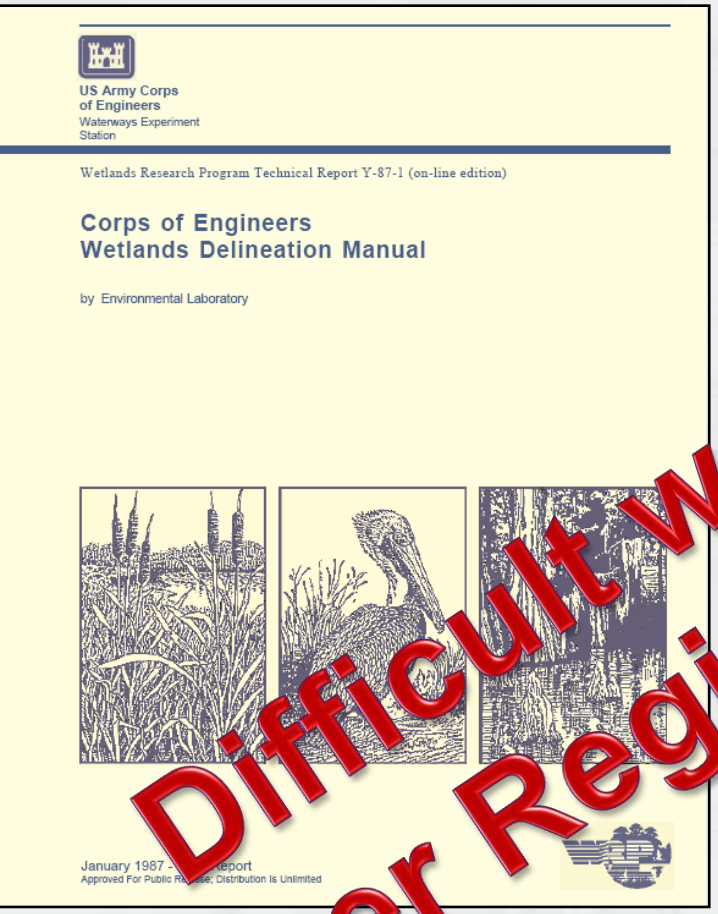
Consider:

“extent and relative permanence”

and

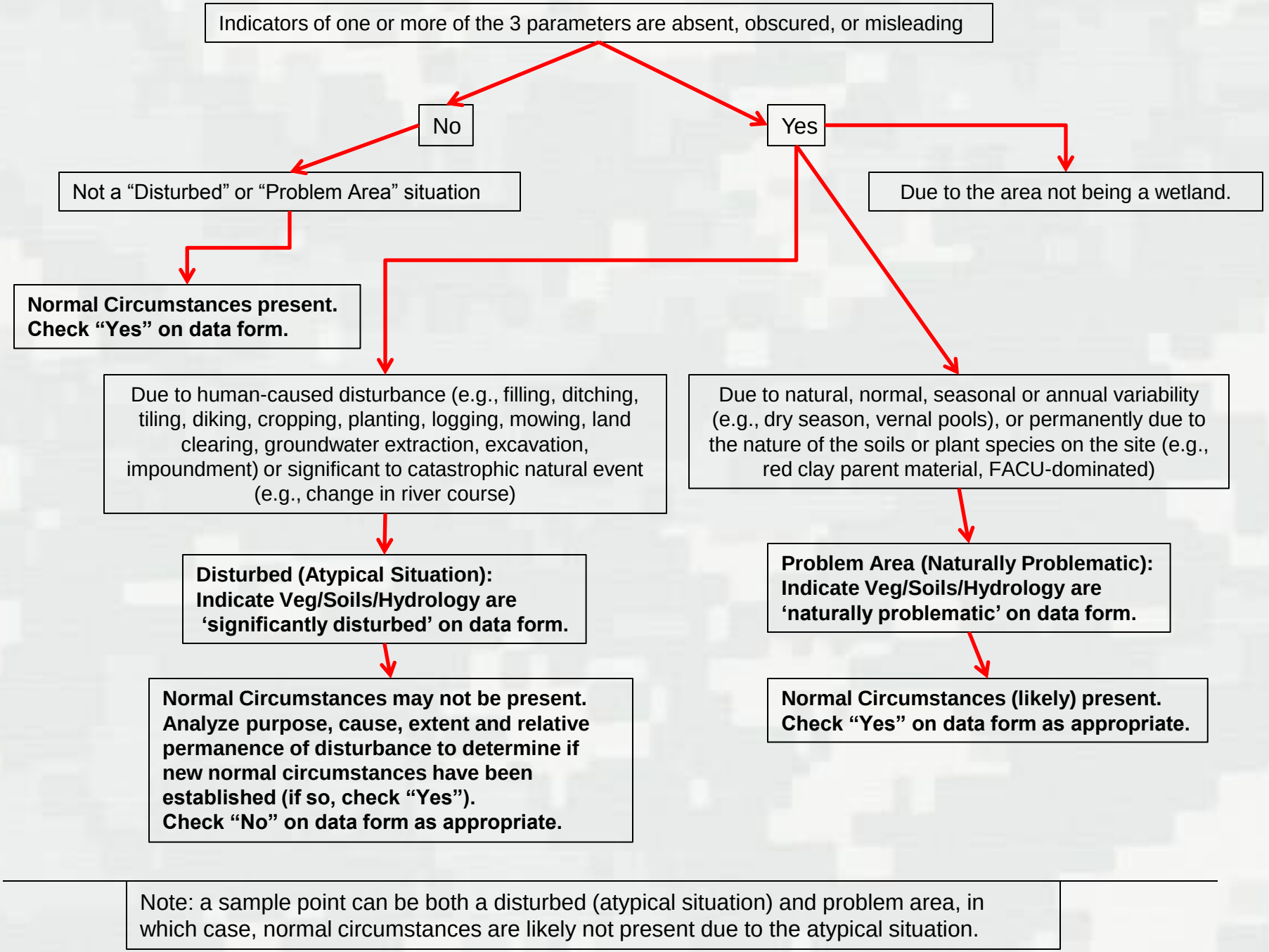
“purpose and cause”

of the physical alteration to vegetation and/or hydrology



- Atypical situations
  - ► One or more parameters absent due to recent human activity or natural event
    - Disturbed site
  - ► Problem areas
    - ► One or more parameters periodically or permanently absent due to natural conditions.
      - Naturally “problematic” site

Difficult wetland situations per Regional Supplements


Indicators of one or more of the 3 parameters are absent, obscured, or misleading
No
Yes
Not a “Disturbed” or “Problem Area” situation
Due to the area not being a wetland.
Normal Circumstances present.
Check “Yes” on data form.
Due to human-caused disturbance (e.g., filling, ditching, tiling, diking, cropping, planting, logging, mowing, land clearing, groundwater extraction, excavation, impoundment) or significant to catastrophic natural event (e.g., change in river course)
Due to natural, normal, seasonal or annual variability (e.g., dry season, vernal pools), or permanently due to the nature of the soils or plant species on the site (e.g., red clay parent material, FACU-dominated)
Disturbed (Atypical Situation):
Indicate Veg/Soils/Hydrology are
‘significantly disturbed’ on data form.
Problem Area (Naturally Problematic):
Indicate Veg/Soils/Hydrology are
‘naturally problematic’ on data form.
Normal Circumstances may not be present.
Analyze purpose, cause, extent and relative permanence of disturbance to determine if new normal circumstances have been established (if so, check “Yes”).
Check “No” on data form as appropriate.
Normal Circumstances (likely) present.
Check “Yes” on data form as appropriate.
Note: a sample point can be both a disturbed (atypical situation) and problem area, in which case, normal circumstances are likely not present due to the atypical situation.

Normal Circumstances

A new, permitted alteration that is relatively permanent can establish a new normal circumstance (e.g., concrete dam, authorized wetland fill)

Ditch constructed in 1950s and maintained since = ditch is established as the normal circumstance; partially drained is the normal circumstance for hydrology

Ditch constructed last year = ditch is a new circumstance, drainage impact is not the normal circumstances for hydrology (yet…)

1987 Manual: Mere presence of artificial drainage system does not necessarily mean wetland hydrology has been eliminated

Normal Circumstances

Recent, unauthorized fill that buried native soils and altered hydrology is not the normal circumstance

Ag Land Normal Circumstances

- Normal cropping of an agricultural field is NOT the normal circumstance.

- Determine the soils and hydrology naturally driving the site, not what “normally” happens by humans.
- Mapping Conventions (off-site review) will help determine ‘normal’ hydrology in agricultural settings.


30
360th St NW
30

Normal Environmental Conditions

The conditions expected during the normal wet portion of the growing season during a normal precipitation year.

(It's our job to determine if the indicators are reflective of what would be expected during NEC. Hint: we usually aren't observing wetlands during NEC.)

NEC vs. NC

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: | City/County: | Sampling Date:

Applicant/Owner: | State: | Sampling Point:

Investigator(s): | Section, Township, Range:

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):

Slope (%): | Lat: | Long: | Datum:

Soil Map Unit Name: | NWI Classification:

Normal Environmental Conditions?

Are climatic/hydrologic conditions of the site typical for this time of the year? | (If no, explain in remarks.)

Are vegetation , soil , or hydrology significantly disturbed? | Are "normal circumstances" present?

Are vegetation , soil , or hydrology naturally problematic? | (If needed, explain any answers in remarks.)

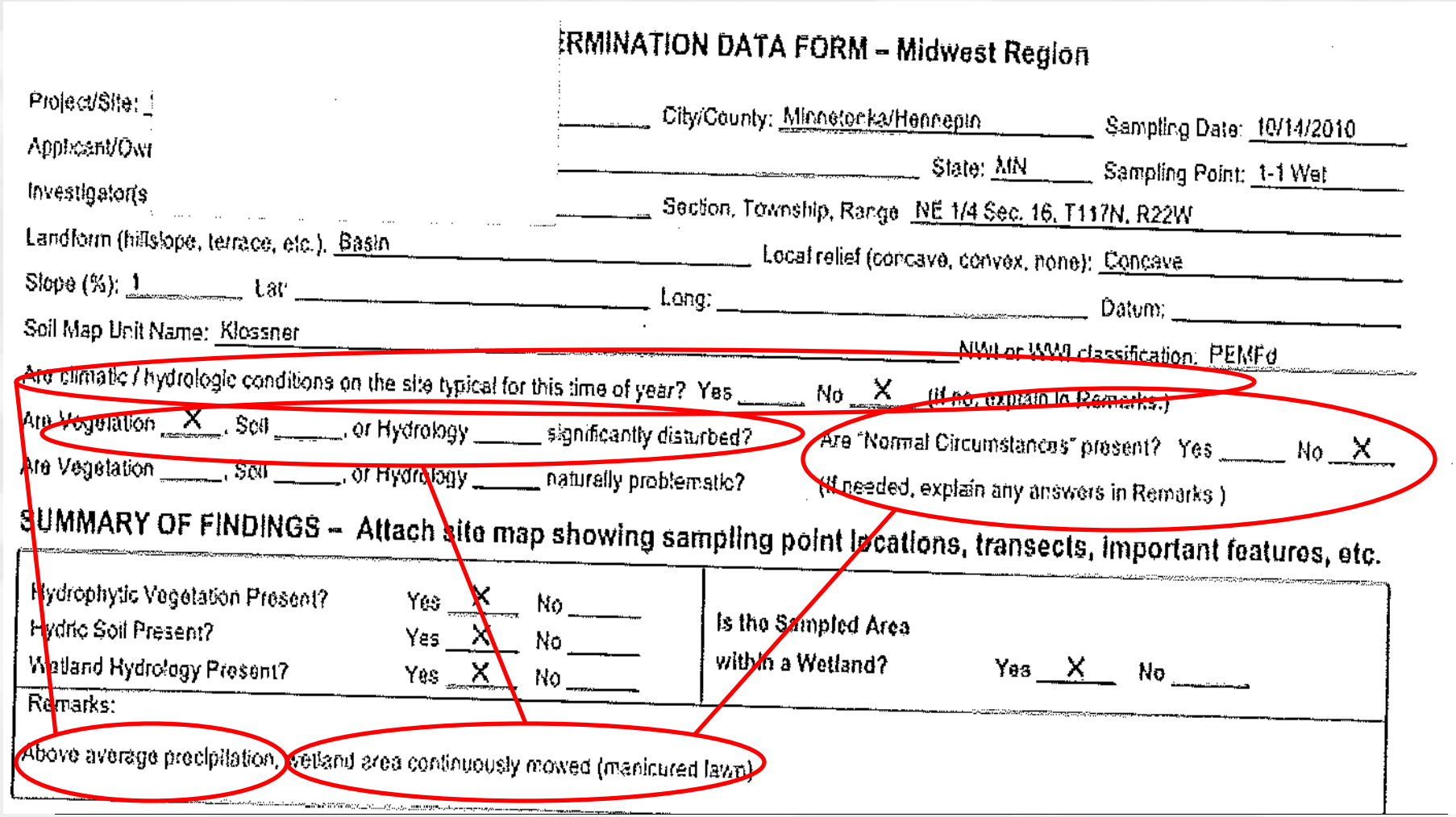
Normal circumstances?

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N	
Hydric soil present?	**Is the sampled area within a wetland?** N
Indicators of wetland hydrology present?	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent Precipitation (Normal Environmental Conditions)



ERMINATION DATA FORM – Midwest Region

Project/Site: _____ City/County: Minnetonka/Hennepin Sampling Date: 10/14/2010

Applicant/Owner: _____ State: MN Sampling Point: 1-1 Wet

Investigator(s): _____ Section, Township, Range: NE 1/4 Sec. 16, T117N, R22W

Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave

Slope (%): 1 Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Klossner NWI or WWI classification: PEMFd

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

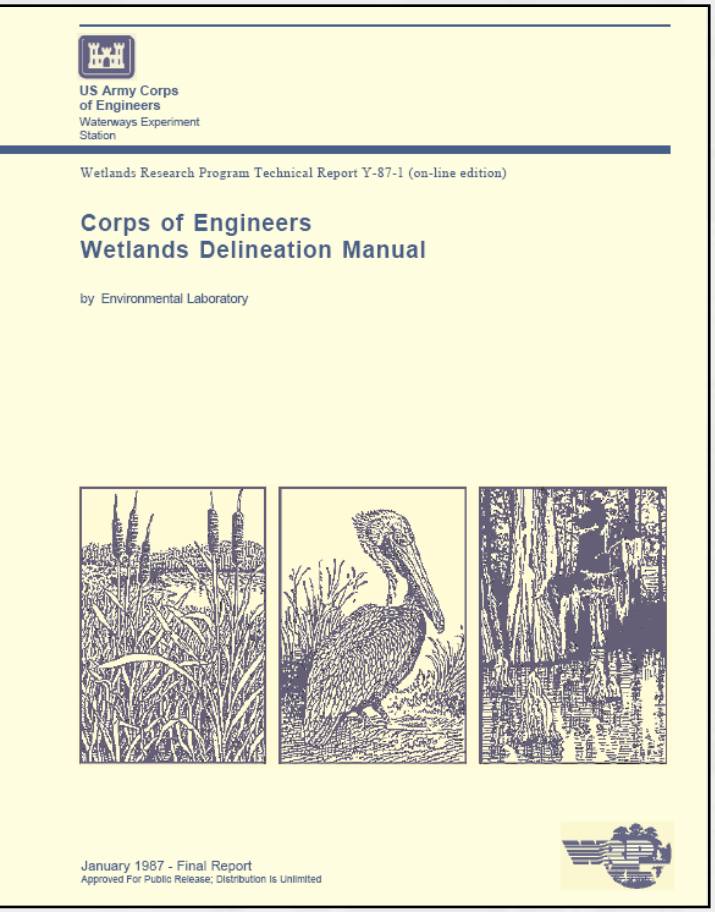
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Above average precipitation, wetland area continuously mowed (manicured lawn)

Difficult Wetland Situations



Examples of Atypical Situations:

- Unauthorized activities
- Natural events
- Man-induced wetlands

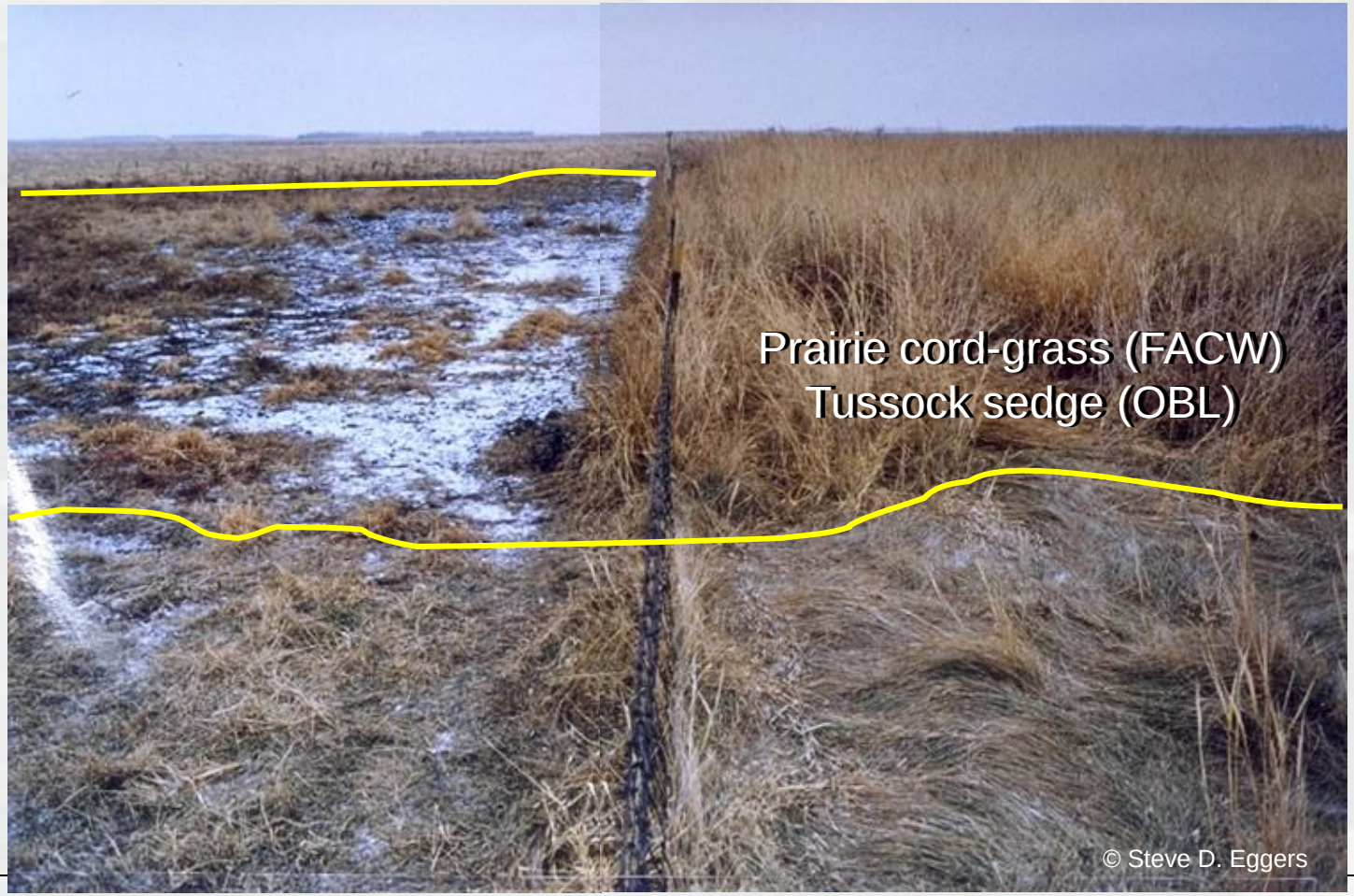

Atypical situation
© Steve D. Eggers


Atypical situation

Areas affected by grazing

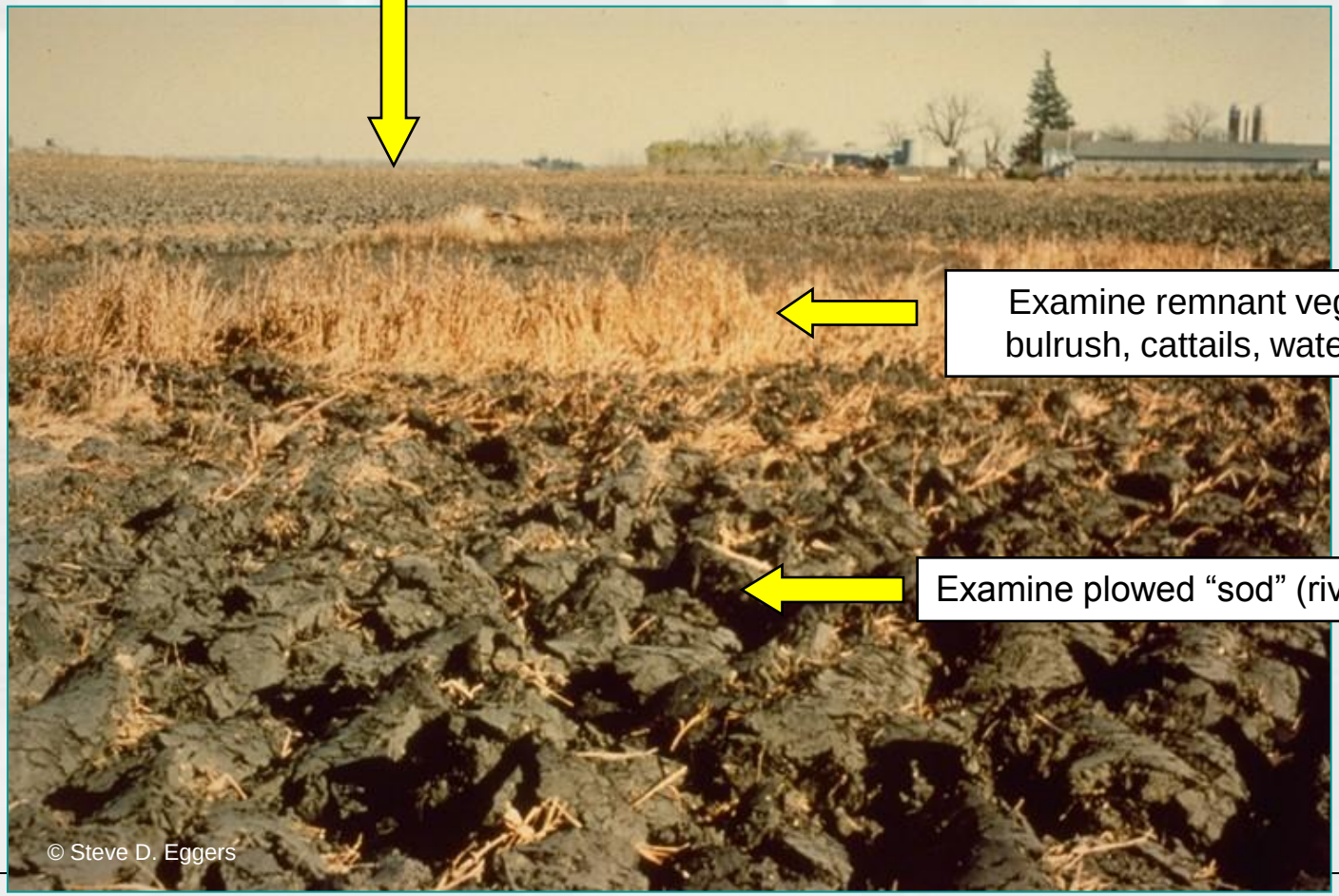
“Increasers” and “decreasers”

Areas affected by grazing



Managed plant communities

Ag lands – apply interagency mapping conventions !

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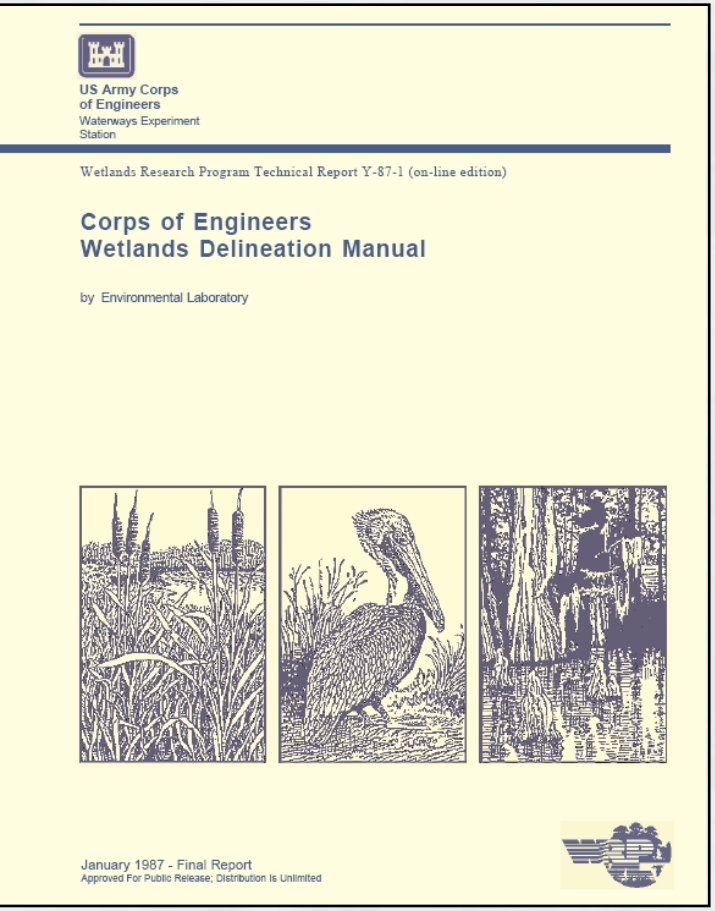
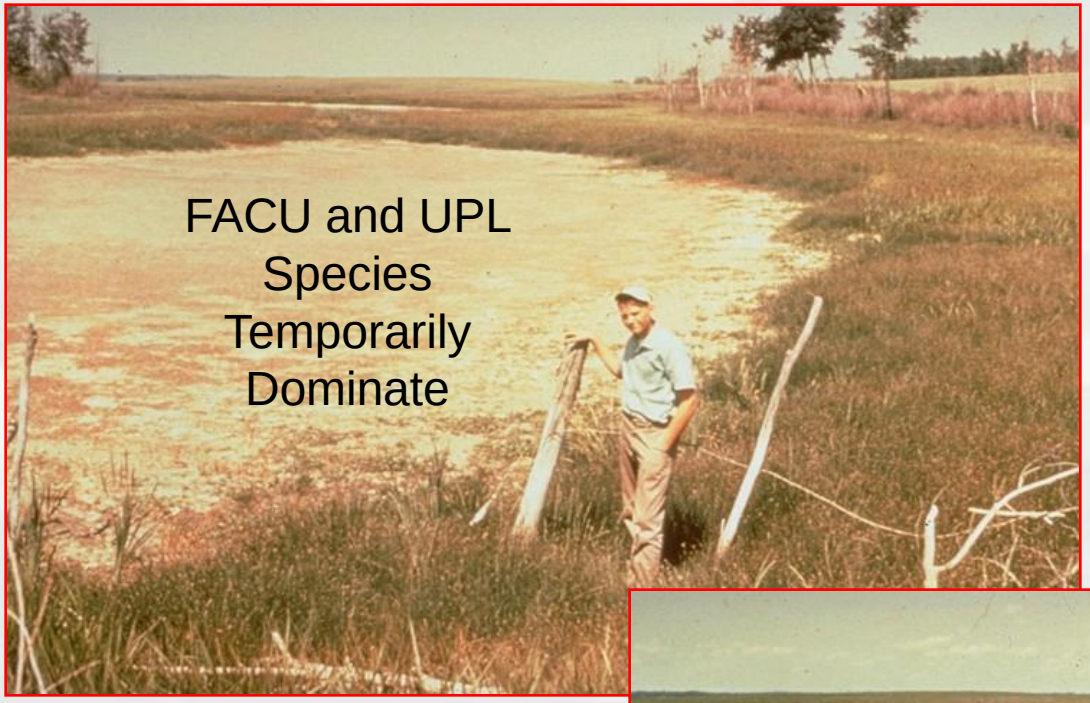
Difficult Wetland Situations



Examples of Problem Areas:

- Wetlands on drumlins
- Seasonal wetlands
- Prairie potholes
- Vegetated flats

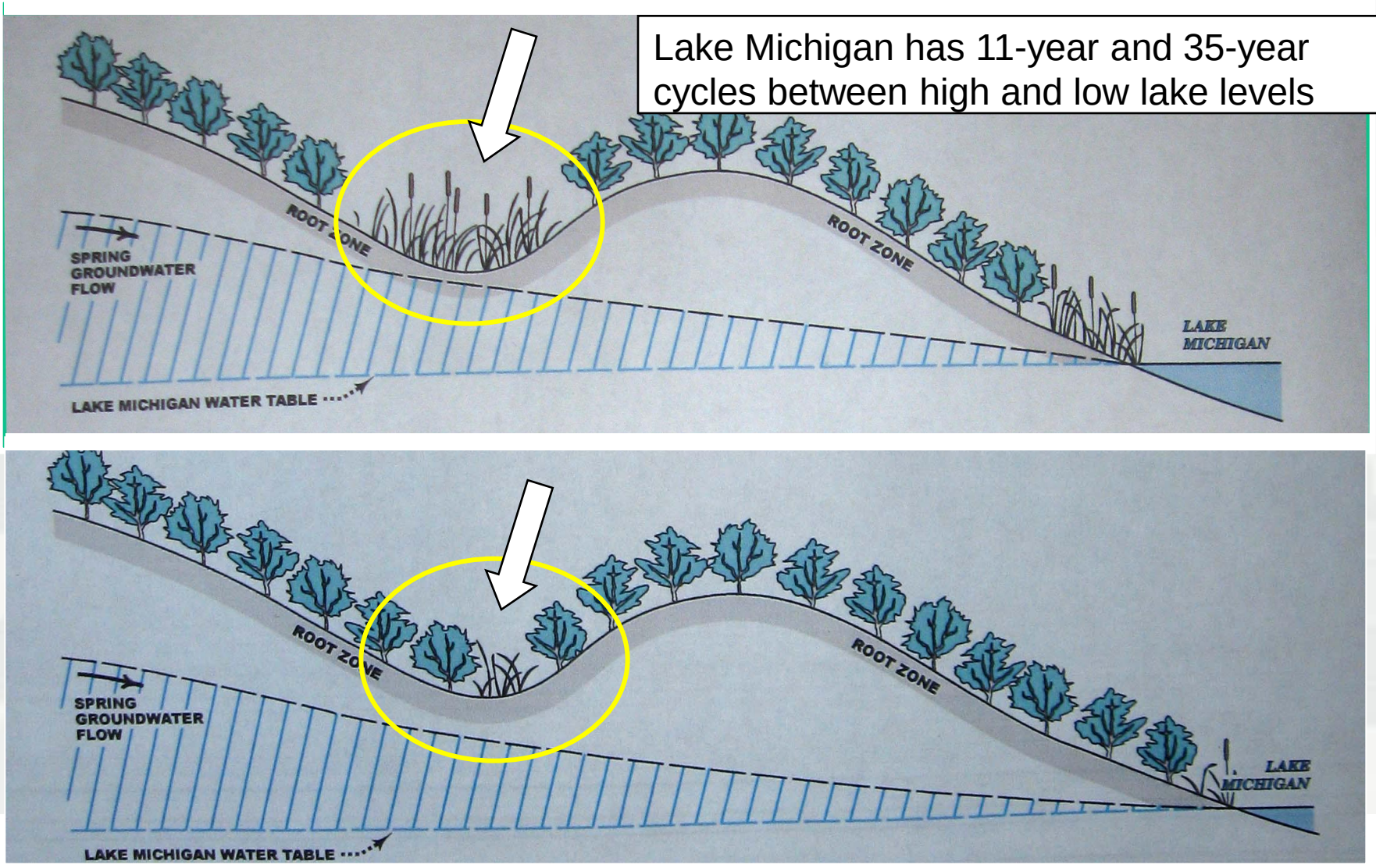
Seasonal Wetlands



Long-Term Cycles of Wet and Drought

Multi-Year Temporal Shifts in Vegetation: Lake Michigan Example

Lake Michigan has 11-year and 35-year cycles between high and low lake levels



Problematic Hydrophytic Vegetation

Steve D. Eggers Photograph


Problem Area
Atypical situation
May 12, 2011


310th St
310th St
64
890th Ave
890th Ave
64
890th Ave
64
890th Ave


20
40
60

Fluvial sediments

Indicators of Wetland Hydrology: Circumstantial Evidence

Water Drives the System

However, of the three technical criteria for wetland identification, wetland hydrology is often the least exact and most difficult to establish in a one-time field visit, due largely to multi-year, annual, seasonal and even daily fluctuations.

Supplements: Chapter 5

The goal is to determine if

VEGETATION

SOILS

HYDROLOGY

would be present

under NORMAL CIRCUMSTANCES

Difficult Wetland Situations

“Amphibious Valtra C Series tractor is ideal for working on a wet, new peat bog.”


No Longer a "Problem"
43 YEARS AGO WE WERE A SWAMP.
LORD FLETCHER'S
OLD LAKE LODGE
NAEGELE
4 MAY 2011 12:23

KEEP CALM

We'll Get to the Carrion Part in a Minute.